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FEB 1 1973

Docket No. 50-220

Niagara Mohawk Power Corporation

ATTN: Thomas J. Brogan

Vice President and Chief Engineer

300 Erie Boulevard West

Syracuse, New York 13202

Gentlemen:

In connection with the preparation of the Environmental Statement for the Nine Mile Point Nuclear Station Unit 1, we find that additional information is required. The enclosure to this letter describes the required information.

In order to expedite the review, we request that completely adequate responses to the items covered in the enclosure to this letter be submitted to this office as early as possible, but not later than March 7, 1973. Please inform us within seven days after receipt of this letter of your confirmation of the schedule or the date you will be able to meet.

Your reply should consist of three signed originals and 297 additional copies as a sequentially numbered supplement of your Environmental Report. Please forward 200 of these copies and retain the remaining 100 for future use.

If additional information is required relating to the requested information, please feel free to contact Mr. Jan Norris, Environmental Project Manager, at 301-973-7263.

Sincerely,

Original signed by W. H. Regan, Jr.

Wm. H. Regan, Jr., Chief  
Environmental Projects Branch 4  
Directorate of Licensing

Enclosure as stated

cc: Arvin E. Upton, Esq.  
LeBocuf, Lamb, Leiby & MacRae  
1821 Jefferson Place, N.W.  
Washington, D. C. 20036

OFFICE	LAER-1	L:EP-4				
SURNAME	JANORRIS:pc	WRegan				
DATE	1/31/73	2/1/73				

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REQUEST FOR ADDITIONAL INFORMATION FOR  
NINE MILE POINT NUCLEAR STATION UNIT 1

1. BIOLOGICAL

- 1.1. Provide all available information to substantiate the statement "Operating experience since 1969 indicates that velocities of this magnitude (2 fps) have resulted in the entrapment of only a very few fish primarily alewives, in the onshore screen well." (p. 5.1-2).
- 1.2. Provide details and rationale of your fish impingement monitoring program.
- 1.3. Provide number and kinds of fish collected at the bar racks in the intake bays for each day of observation.
- 1.4. Give percentage of fishes collected on the traveling screens which have been found to be alive.
- 1.5. Provide information on the spacings between the bars of the bar racks -
  - (a) at the offshore intake
  - (b) in the intake bay onshore
- 1.6. Provide measurements of intake velocity at the face of the vertical traveling screens.
- 1.7. Describe the extent of participation of NY State Environmental Conservation Department, U. S. Bureau of Sport Fisheries and Wildlife, and other State and Federal agencies in planning of ecological studies. (p. 5.5-1).
- 1.8. Describe which portion of studies conducted since 1963 has been designated as providing "baseline information." Give the extent of natural variability and sampling error for various parameters being measured. Explain exactly how each of these measured parameters will be used to assess the operational effects of the plant in view of such natural variability and sampling error.
- 1.9. Provide rationale for selecting 12 transects in a two mile stretch of the shore.
- 1.10. Give reasons for not synchronizing data collection for various biological and water chemistry parameters.



- 1.11. Provide quantitative data to substantiate the statement "In general the quantity of plant and animal material found along the Nine Mile Point promontory is less than other areas in the lake." (P. 2.7-7).
- 1.12. Provide data analyses and records of observations which show that "No adverse effect has been observed on aquatic biota in the Nine Mile Point area due to thermal, chemical, or radiological releases from the station." (p. 5.1-5).
- 1.13. Provide quantitative information to substantiate the statement "Fish larval abundance appears to be quite low." (p. 2.7-5).
- 1.14. If the fish larval abundance is quite low explain how were the larvae obtained for entrainment studies and how were the studies conducted. Discuss the significance of these entrainment studies if the larval abundance is quite low.
- 1.15. Provide reasons for not proposing phyto- and zooplankton entrainment studies.
- 1.16. The preliminary results of entrainment study conservatively indicated plankton mortality between 10% and 30% (ambient temperature,  $\Delta T$ , and residence time not mentioned). Provide the final results for  $\Delta T$  of 32°F and a residence time of over 4 minutes for various ambient temperatures (including 77°F ambient).
- 1.17. Explain how the plankton data from 1964 can be used in assessing the impact of plant operation on plankton population.
- 1.18. Provide the diurnal and seasonal distribution pattern for zoo- and phytoplankton in the vicinity of the intake structure at various depths.
- 1.19. Explain if the 20 ft. depth contour covers all the area underlying 1°F  $\Delta T$  isotherm of the thermal plume.
- 1.20. Give the size of the area sampled for each of the benthos samples taken by the divers.
- 1.21. Explain usefulness of weighing ashed plant material and use of this parameter in evaluating power plant operational effects.
- 1.22. Explain the reason for not using east transect as a control for trawl sampling for fishes. (p. 5.5-9).



- 1.23. Provide rationale for trawling along the whole transects. This assumes no change in populations from near shore areas to 40 ft. depth (end of transect) which may not be true.
- 1.24. Provide complete details of studies conducted since 1969 which have verified the phenomenon that "Fish are able to select or avoid areas of the thermal plume in response to preferred temperatures." (p. 5.1-5)
- 1.25. Provide quantitative information obtained from diver studies which have shown significant increase in the small mouth bass population in the vicinity of the discharge. At what level were these observations significant? (p. 5.5-4).
- 1.26. Provide copies of data records that show no significant loss in oxygen content of water (mg. of oxygen/liter of water) during the warmest period of the year, giving exact locations of sampling. (p. 5.5-7).
- 1.27. List any rare and endangered species of plants and animals found in your terrestrial survey of the plant area and transmission right-of-way. Give names of plants and animals and their locations. Describe precautions taken to preserve them.

## 2. TRANSMISSION LINES

- 2.1. Provide the number of transmission lines which will ultimately be carried in the right-of-way. Give tower dimensions. The Environmental Report states that the 27 mile right-of-way passes through 10 miles of farmland, 4 miles of wetland, and 5 miles of wooded areas. Describe the environment the line passes through in the other 8 miles. Provide number of homes removed during construction of the right-of-way.
- 2.2. Describe herbicides used for maintenance of the right-of-way. Give details of location and schedule of use.
- 2.3. Provide information if the transmission facilities follow:
  - (a) the "Environmental Criteria for Electric Transmission Systems," published by U.S. Depts. of Interior and Agriculture
  - (b) The New York Public Service Commission and Dept. of Environmental Conservation Rules and Regulations Affecting Transmission Lines





- (c) Federal Power Commission's "Guidelines for the Protection of Natural, Historic, Science and Recreational Values in the Design and Location of Right-of-Way and Transmission Facilities"

3. CHEMICAL AND SANITARY WASTES

- 3.1. Give the volume of the oxygenation pond (2800 sq ft area) used for sewage effluent.
- 3.2. If it becomes necessary to clean the condenser or service water system, describe the process which will be used.
- 3.3. Provide data on the average flow of makeup water through the demineralizer.
- 3.4. Describe provisions preventing oil which enters floor and equipment drains from being discharged into Lake Ontario via a storm drain.
- 3.5. Describe location in the lake where the detergent phosphorus concentration is measured. Give a detailed calculation showing how 0.2 ppb concentration for phosphorus was obtained. If the laundry waste discharge is not continuous, give frequency of discharge and maximum phosphorus concentration at the point of discharge.

4. NEED FOR POWER

- 4.1. Provide the 1972 summer and winter electrical power peak loads for the following New York State Power Pool members and other utilities:

Central Hudson Gas and Electric Corp.  
Consolidated Edison Co. of N.Y., Inc.  
Long Island Lighting Company  
New York State Electric and Gas Corp.  
Niagara Mohawk Power Corporation  
Orange and Rockland Utilities, Inc.  
Rochester Gas and Electric Corporation  
Power Authority of the State of New York  
Jamestown Municipal Electric System  
Long Sault, Inc.  
Village of Freeport



- 4.2. Provide a tabulation by months of the power production of Nine Mile Point Unit 1 during 1971 and 1972.
- 4.3. Describe problems and their resolution (if any) encountered by Niagara Mohawk in providing for the electrical load, during periods when Nine Mile Point Unit 1 was not operating or was operated at less than 80% power in 1971 and 1972. Discuss any additional problems which Niagara Mohawk would encounter if Unit 1 were shut down.

5. GENERAL

- 5.1. Give the acreage found in the temporary game refuge. Describe the status of the plans for creation of a permanent game refuge.
- 5.2. Provide information if the landscaping for Unit 1 is complete. Describe any erosion on the Station site or along transmission line since the plant has been operating.
- 5.3. Provide information and describe navigational buoys marking intake and discharge structures.
- 5.4. The horizontal scale on Figure 3.5-2 is inconsistent with the drawing. Provide correct scale. Give distance from the shoreline to the discharge structure. The 0.1 mile stated in Section 3.5.2 appears to be in error.
- 5.5. Provide current status of authorizations, permits and licenses connected with the operation of the facility.
- 5.6. Provide results of all thermal surveys made in the Nine Mile Point area.

